

# LAB 3

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- QUESTION 1

The image shows two screenshots of the 8086 Compiler web interface, demonstrating the compilation process.

**Top Screenshot (Before Compilation):**

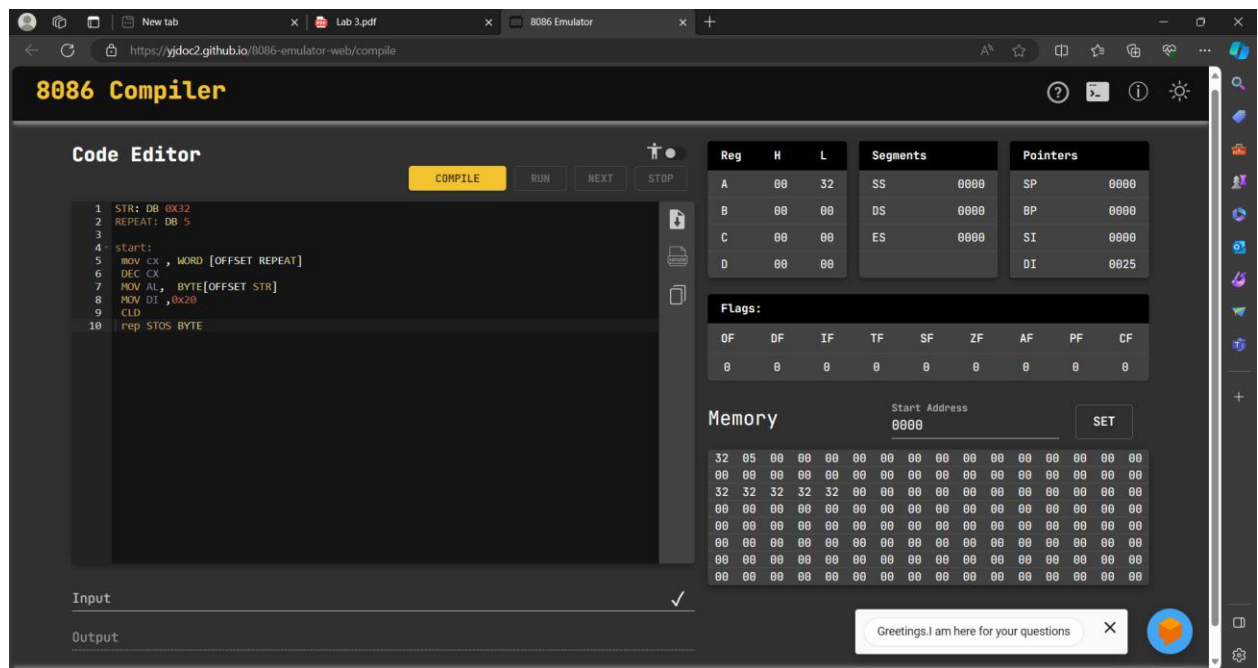
- Code Editor:** Contains assembly code for a program that initializes a data list, sets up pointers, and enters a loop.
- Registers:** A table showing the state of registers A, B, C, and D. Register C contains 01.
- Segments:** A table showing segment registers SS, DS, and ES, all containing 0000.
- Pointers:** A table showing pointer registers SP, BP, SI, and DI. SI contains 0010.
- Flags:** A table showing various flags (OF, DF, IF, TF, SF, ZF, AF, PF, CF). ZF is 1, PF is 1.
- Memory:** A table showing memory addresses from 0000 to 00FF, all containing 00.

**Bottom Screenshot (After Compilation):**

- Code Editor:** The same assembly code is shown, but it has been compiled into machine code.
- Registers:** The state of registers A, B, C, and D remains the same as in the top screenshot.
- Segments:** The state of segment registers SS, DS, and ES remains the same.
- Pointers:** The state of pointer registers SP, BP, SI, and DI remains the same.
- Flags:** The state of flags (OF, DF, IF, TF, SF, ZF, AF, PF, CF) remains the same.
- Memory:** The state of memory addresses from 0000 to 00FF remains the same.

In this code I searching to find the largest number of the list then store it in address 8 then remove it from the list and increment si and di and do it again in loop until the address become (8+num of element of the list ) hen hlt.

- Question 2



In this code I just repeat the stos using rep until cx which equal repeat became 0, we store the str in al because stos using it .